DOCKET NO. 491 – Cellco Partnership d/b/a Verizon Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a telecommunications facility located at 110 Yantic Lane, Norwich, Connecticut.	}	Connecticut Siting Council

February 25, 2021

Findings of Fact

Introduction

1. Cellco Partnership d/b/a Verizon Wireless (Cellco), in accordance with provisions of Connecticut General Statutes (C.G.S.) § 16-50g, et seq, applied to the Connecticut Siting Council (Council) on July 7, 2020 for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance, and operation of a 110-foot monopole wireless telecommunications facility at 110 Yantic Lane, Norwich, Connecticut. (Cellco 1, p. ES i)

2. Cellco is a Delaware Partnership with an administrative office located at 20 Alexander Drive, Wallingford, Connecticut. Cellco is licensed by the Federal Communications Commission (FCC) to provide personal wireless communication service in the State of Connecticut. (Cellco 1, p. 2)

3. The party in this proceeding is Cellco. (Transcript 1, October 29, 2020, 2 p.m. (Tr. 1). p. 8)

4. The purpose of the proposed facility is to increase network capacity and provide reliable wireless service to existing service deficient areas in westerly portions of Norwich as well as portions of Bozrah and Franklin, particularly along portions of Route 2 and the Interstate 395 (I-395) interchange. (Cellco 1, p. 6)

5. Pursuant to C.G.S. § 16-50*l* (b), the applicant provided public notice of the filing of the application that was published in the Norwich Bulletin on July 2, and July 3, 2020. (Cellco 1, p. 3; Cellco 6)

6. Pursuant to C.G.S. § 16-50*l* (b), notice of the application was provided to all abutting property owners by certified mail. All certified mail receipts from abutting property owners were received. (Cellco 1, p, 3, Attachment 4; Cellco 2, response 1)

7. On July 8, 2020, the applicant provided notice to all federal, state and local officials and agencies listed in C.G.S. § 16-50*l* (b), including the Town of Bozrah, located within 2,500 feet of the site property. (Cellco 1, Attachment 2)

Procedural Matters

8. On March 10, 2020, Governor Lamont issued a Declaration of Public Health and Civil Preparedness Emergencies, proclaiming a state of emergency throughout the state as a result of the COVID-19 pandemic. (Council Administrative Notice Item No. 52).

9. On March 12, 2020, Governor Lamont issued Executive Order No. (EO) 7 ordering a prohibition of large gatherings, among other orders and directives. (Council Administrative Notice Item No. 52).

10. On March 14, 2020, and as subsequently extended, Governor Lamont issued EO 7B ordering suspension of in-person open meeting requirements of all public agencies under CGS §1-225. The Freedom of Information Act defines "meeting" in relevant part as "any hearing or other proceeding of a public agency." (Council Administrative Notice Item No. 52, CGS §1-200, et seq. (2019)).

11. EO 7B allows public agencies to hold remote meetings provided that:
    a) The public has the ability to view or listen to each meeting or proceeding in real-time, by telephone, video, or other technology;
    b) Any such meeting or proceeding is recorded or transcribed and such recording or transcript shall be posted on the agency's website within seven (7) days of the meeting or proceeding;
    c) The required notice and agenda for each meeting or proceeding is posted on the agency's website and shall include information on how the meeting will be conducted and how the public can access it any materials relevant to matters on the agenda shall be submitted to the agency and posted on the agency's website for public inspection prior to, during and after the meeting; and
    d) All speakers taking part in any such meeting shall clearly state their name and title before speaking on each occasion they speak.

    (Council Administrative Notice Item No. 52)

12. On March 25, 2020 and as subsequently extended, Governor Lamont issued EO 7M allowing for an extension of all statutory and regulatory deadlines of administrative agencies for a period of no longer than 90 days. (Record; Council Administrative Notice Item No. 68)

13. Upon receipt of the application, the Council sent a letter to the City of Norwich (City) and the Town of Bozrah on July 13, 2020, as notification that the application was received and is being processed, in accordance with C.G.S. § 16-50gg. (Record)

14. During a regular Council meeting on August 27, 2020, the application was deemed complete pursuant to Regulations of Connecticut State Agencies (R.C.S.A.) § 16-50*l*-1a and the public hearing schedule was approved by the Council. (Record)

15. Pursuant to Governor Lamont's EO 7B and C.G.S. § 16-50m, the Council published legal notice of the date and time of the public hearing in The Norwich Bulletin on August 29, 2020. (Record)

16. Pursuant to Governor Lamont's EO 7B and C.G.S. § 16-50m, on August 28, 2020, the Council sent letters to the City and the Town of Bozrah to provide notification of the scheduled public hearing and to invite the municipalities to participate. (Record)

17. In compliance with Governor Lamont's EO 7 prohibition of large gatherings, the Council's Hearing Notice did not refer to a public field review of the proposed site. (Record)

18. Field reviews are not an integral part of the public hearing process. The purpose of a site visit is an investigative tool to acquaint members of a reviewing commission with the subject property. (Council Administrative Notice Item Nos. 53 and 54)

19. On September 11, 2020, in lieu of an in-person field review of the proposed site, the Council requested that Cellco submit photographic documentation of site-specific features into the record intended to serve as a "virtual" field review of the site. On October 1, 2020, Cellco submitted such information in response to the Council's interrogatories. (Record; Cellco 4, response 26)

20. On September 16, 2020, the Council held a pre-hearing teleconference on procedural matters for parties and intervenors to discuss the requirements for pre-filed testimony, exhibit lists, administrative notice lists, expected witness lists and filing of pre-hearing interrogatories. Procedures for the remote public hearing via Zoom conferencing were also discussed. (Council Pre-Hearing Conference and remote hearing procedure Memoranda, dated September 9, 2020 and September 18, 2020)

21. On September 24, 2020, the Council issued a Protective Order related to the disclosure of the monthly rent and financial terms contained within the lease agreement for the proposed site, pursuant to CGS §1-210(b) and consistent with the Conclusions of Law adopted in Docket 366. (Record)

22. In compliance with R.C.S.A. § 16-50j-21, the Applicant installed a four-foot by six-foot sign at the entrance to the subject property on October 14, 2020. The sign presented information regarding the project and the Council's public hearing. (Cellco 7- Applicant's Sign Posting Affidavit)

23. Pursuant to C.G.S. § 16-50m, the Council gave due notice of a remote public hearing to be held on October 29, 2020, beginning with the evidentiary session at 2:00 p.m. and continuing with the public comment session at 6:30 p.m. via Zoom conferencing. The Council provided information for video/computer access or audio only telephone access. (Council's Hearing Notice dated August 28, 2020; Tr. 1, p. 1)

24. In compliance with Governor Lamont's EO 7B:

    a) The public had the ability to view and listen to the remote public hearing in real-time, by computer, smartphone, tablet or telephone;
    b) The remote public hearing was recorded and transcribed, and such recording and transcript were posted on the Council's website on November 16, 2020;
    c) The Hearing Notice, Hearing Program, Citizens Guide for Siting Council Procedures and Instructions for Public Access to the Remote Hearing were posted on the agency's website;
    d) The record of the proceeding is available on the Council's website for public inspection prior to, during and after the remote public hearing; and
    e) The Council, parties and intervenors provided their information for identification purposes during the remote public hearing.

    (Hearing Notice dated August 28, 2020; Tr. 1; Transcript 2, October 29, 2020, 6:30 p.m. (Tr. 2); Record)

State Agency Comment

25. Pursuant to C.G.S. § 16-50j (g), on August 28, 2020, the following state agencies were solicited by the Council to submit written comments regarding the proposed facility: Department of Energy and Environmental Protection (DEEP); Department of Public Health (DPH); Council on Environmental Quality (CEQ); Public Utilities Regulatory Authority (PURA); Office of Policy and Management (OPM); Department of Economic and Community Development (DECD); Department of Agriculture (DOAg); Department of Transportation (DOT); Connecticut Airport Authority (CAA); Department of Emergency Services and Public Protection (DESPP); and State Historic Preservation Office (SHPO). (Record)

26. The Council received comments from the DOT's Bureau of Engineering and Construction on September 17, 2020, which are attached. (Record)

27. The following agencies did not respond with comment on the application: DEEP, CEQ, PURA, OPM, DECD, DOAg, CAA, DESPP, DPH, and SHPO. (Record)

28. While the Council is obligated to consult with and solicit comments from state agencies by statute, the Council is not required to abide by the comments from state agencies. (*Corcoran v. Connecticut Siting Council*, 284 Conn. 455 (2007)).

Municipal Consultation

29. Cellco commenced the 90-day pre-application municipal consultation process by meeting with City Mayor Peter Nystrom and Zoning Enforcement Officer Richard Schuck (ZEO) on March 4, 2020. Cellco provided copies of the technical report and discussed the project with these municipal officials. (Cellco 1, pp. 20-21)

30. Cellco also sent copies of the technical report to the Town of Bozrah on March 4, 2020, as Bozrah is within 2,500 feet of the proposed project. (Cellco 1, Bulk Filing Technical Report, March 4, 2020; Tr. 1, p. 13)

31. At the request of the City~~,~~ Cellco hosted a Public Information Meeting (PIM) via tele-conference on April 30, 2020, and notice was published in The Norwich Bulletin and sent to the abutting landowners. The PIM was attended by Nora and Ronald Brine, abutting land owners to the southwest of the property, representatives of Norwich Public Utilities (NPU) and the ZEO. (Cellco 1, p. 21)

32. Cellco did not receive any comments from the Town of Bozrah. (Tr. 1, p. 13)

Public Need for Service

33. In 1996, the United States Congress recognized a nationwide need for high quality wireless telecommunications services, including cellular telephone service. Through the Federal Telecommunications Act of 1996, Congress seeks to promote competition, encourage technical innovations, and foster lower prices for telecommunications services. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996)

34. In issuing cellular licenses, the Federal government has preempted the determination of public need for cellular service by the states and has established design standards to ensure technical integrity and nationwide compatibility among all systems. Cellco is licensed by the FCC to provide personal wireless communication service to New London County, Connecticut. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996; Cellco 1, p. 6 and Tab 5)

35. Section 253 of the Telecommunications Act of 1996 prohibits any state or local statute or regulation, or other state or local legal requirement from prohibiting or having the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996)

36. Section 704 of the Telecommunications Act of 1996 prohibits local and state entities from discriminating among providers of functionally equivalent services and from prohibiting or having the effect of prohibiting the provision of personal wireless services. This section also requires state or local governments to act on applications within a reasonable period of time and to make any denial of an application in writing supported by substantial evidence in a written record. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996)

37. Section 704 of the Telecommunications Act of 1996 also prohibits any state or local entity from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions, which include effects on human health and wildlife, to the extent that such towers and equipment comply with FCC's regulations concerning such emissions. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996)

38. Section 706 of the Telecommunications Act of 1996 requires each state commission with regulatory jurisdiction over telecommunications services to encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans, including elementary and secondary schools, by utilizing regulating methods that promote competition in the local telecommunications market and remove barriers to infrastructure investment. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996)

39. In December 2009, President Barack Obama recognized cell phone towers as critical infrastructure vital to the United States. The Department of Homeland Security, in collaboration with other federal stakeholders, state, local, and tribal governments, and private sector partners, has developed the National Infrastructure Protection Plan (NIPP) to establish a framework for securing resources and maintaining resilience from all hazards during an event or emergency. (Council Administrative Notice Item No. 11 –Presidential Proclamation 8460, Critical Infrastructure Protection)

40. In February 2012, Congress adopted the Middle Class Tax Relief and Job Creation Act (also referred to as the Spectrum Act) to advance wireless broadband service for both public safety and commercial users. The Act established the First Responder Network Authority to oversee the construction and operation of a nationwide public safety wireless broadband network. Section 6409 of the Act contributes to the twin goals of commercial and public safety wireless broadband deployment through several measures that promote rapid deployment of the network facilities needed for the provision of broadband wireless services. (Council Administrative Notice Item No. 8 – Middle Class Tax Relief and Job Creation Act of 2012)

41. In June 2012, President Barack Obama issued an Executive Order to accelerate broadband infrastructure deployment declaring that broadband access is a crucial resource essential to the nation's global competitiveness, driving job creation, promoting innovation, expanding markets for American businesses and affording public safety agencies the opportunity for greater levels of effectiveness and interoperability. (Council Administrative Notice Item No. 22 – FCC Wireless Infrastructure Report and Order; Council Administrative Notice Item No. 12 – Presidential Executive Order 13616, Accelerating Broadband Infrastructure Development)

42. Pursuant to Section 6409(a) of the Spectrum Act, a state or local government may not deny and shall approve any request for collocation, removal or replacement of equipment on an existing wireless tower provided that this does not constitute a substantial change in the physical dimensions of the tower. (Council Administrative Notice Item No. 8 – Middle Class Tax Relief and Job Creation Act of 2012; Council Administrative Notice Item No. 23 – FCC Wireless Infrastructure Report and Order)

43. According to state policy, if the Council finds that a request for shared use of a facility by a municipality or other person, firm, corporation or public agency is technically, legally, environmentally and economically feasible, and the Council finds that the request for shared use of a facility meets public safety concerns, the Council shall issue an order approving such shared use to avoid the unnecessary proliferation of towers in the state. (Conn. Gen. Stat. §16-50aa)

44. On August 28, 2020, the Council sent correspondence to other telecommunications carriers requesting that carriers interested in locating on the proposed facility in the foreseeable future notify the Council by October 22, 2020. By email dated October 2, 2020, T-Mobile/Sprint* indicated that it has no plans to co-locate on the proposed facility in the foreseeable future. No other carriers responded to the Council's solicitation.

*T-Mobile and Sprint are now one company operating under the name T-Mobile following the close of a merger on April 1, 2020.
(Record)

45. The City of Norwich did not express an interest in using the proposed tower. (Cellco 1, p. 12)

46. The facility is designed to accommodate the City and local emergency service providers and a minimum of four wireless carriers. The tower could also be designed to be extended up to 20-feet, if the Council requests it. (Cellco 1, p. 12)

Existing and Proposed Wireless Services

47. Cellco's proposed facility would provide both coverage and capacity. (Cellco 1, p. 7; Tr 1 p.35)

48. Cellco is experiencing significant gaps in reliable wireless service in the area at its 700 MHz, 850 MHz, 1900 MHz and 2100 MHz frequencies. This is most notable along Route 2 and the Route 2 and I-395 interchange. Deficient wireless service in the area was confirmed through propagation modeling, drive test analysis, and an analysis of ineffective attempts and dropped call data in the Voice over LTE wireless system. (Cellco 1, p. 6)

49. Cellco's existing Franklin Facility (Beta Sector) is currently operating at capacity limits in the 700 MHz frequency range and is over utilized in the 2100 MHz frequency range. The proposed facility would provide capacity relief. (Cellco 1, p. 7)

50. The table below indicates Cellco's approximate existing coverage gaps in miles for portions of Route 2, Route 32, Route 87, I- 395 and the overall existing coverage footprint in square miles:

Street Name	**700 MHz Coverage Gap**	**1900 MHz Coverage Gap**	**2100 MHz Coverage Gap**
Route 2	2.5 miles	5 miles	4.5 miles
Route 32	1.0 mile	3 miles	2 miles
Route 87	0.5 mile	2.5 miles	1 mile
Interstate 395	2.5 miles	2.5 miles	2.5 miles
State Road Total	6.5 miles	13 miles	10 miles
Overall Coverage footprint	49 square miles	6 square miles	7.5 square miles

(Cellco 2, response 14)

51. Cellco's proposed facility would provide both coverage and capacity relief in the 700 MHz, 850 MHz, 1900 MHz and 2100 MHz frequencies. Below table is miles and square miles in coverage. (Cellco 1, p. i)

Street Name	**700 MHz Coverage**	**850 MHz Coverage**	**1900 MHz Coverage**	**2100 MHz Coverage**
Route 2	3.5 miles	3.5 miles	2.0 miles	2.0 miles
Route 32	2.0 miles	2.0 miles	0.5 mile	0.5 mile
Route 87	2.5 miles	3.0 miles	0.5 mile	0.5 mile
Interstate 395	3.0 miles	3.0 miles	1.5 miles	1.0 mile
State Road Total	11.0 miles	11.5 miles	4.5 miles	4.0 miles
Overall Coverage footprint	32 square miles	32 square miles	9 square miles	6 square miles

(Cellco 1, p. I and p. 8)

52. Cellco's proposed facility would provide service over 700 MHz, 850 MHz, 1900 MHz and 2100 MHz frequency bands at this time. No 5G technology is currently proposed; however, certain frequencies may be reused for 5G services in the future. (Cellco 1, p. 6; Tr. 1, p. 41)

53. Cellco would initially deploy LTE voice and data service equipment utilizing the 700 MHz and 2100 MHz frequency bands on the proposed tower. Cellco designs its LTE network using a -95 dB Reverse Link Operational Path Loss standard for reliable in-vehicle service and -85 Reverse Link Operational Path Loss standard for reliable in-building service. (Cellco 2, response 17; Tr. 1, p. 41)

54. The coverage models indicate that wireless service from the proposed site would overlap with wireless service from the surrounding sites. Some of the projected service from the proposed site would be handled by these adjacent sites. Once the proposed site is activated, the site and the surrounding existing sites would be optimized to maintain operational network performance. (Tr. 1, pp. 43-44)

55. Cellco's proposed facility would interact with surrounding existing facilities as shown in the following table:

Cellco Site Designation	**Site Address**	**Distance/direction from Proposed Site**	**Antenna Height (agl)**	**Structure Type**
Bozrah East	131 Gifford Lane	1.5 miles West	162 Feet	Self-supporting Lattice tower
Franklin	89 Dr. Nott Rd	3.5 miles North	169 Feet	Guyed Lattice tower
Norwich	292 Plain Hill Rd	2.0miles North	159 Feet	monopole
Norwich 6	50 Clinton Avenue	1.0 mile East	60 Feet	Monopole
Norwich 2	101 High Street	3.0 miles Southeast	60 Feet	Rooftop
Norwich West	202 North Wawecus Hill Rd	2.0 miles South	116 Feet	Monopole
North Franklin SC2-A	140 Route 32	2.0 miles North	177 Feet	Monopole

These existing Cellco facilities surrounding the proposed site cannot provide adequate service to the target service area. (Cellco 1, p. 11)

56. Cellco determined the 110-foot centerline height for its antennas would meet its coverage objectives. (Cellco 1, p. 12)

57. Installing the antennas at 100 feet (or ten feet lower) would affect Cellco's ability to meet its wireless service goals for coverage, handoff, and capacity. (Tr. 1, pp. 14-15)

Site Selection

58. Cellco established a search ring for the location of the proposed facility in March of 2017. The search ring is in the western Norwich area with its center located approximately 0.22 mile north-northeast of the proposed site. The search ring would have a radius of 0.50 miles. (Cellco 1, Attachment 1, Attachment 8– Site Search Summary p.1; Cellco 2, Response 13)

59. After determining there were no suitable structures within the search area, Cellco searched for properties suitable for tower development. Cellco investigated five parcels/areas, one of which was selected for site development. The five sites and their determinations are as follows:

a) **140 Yantic Road, Norwich, CT**: This old industrial smokestack would be capable of off-loading capacity from Cellco's Franklin cell tower site but would not provide coverage along Route 2 and the Route 2 and I-395 interchange compared to the proposed site;
b) **170 Yantic Road, Norwich CT**: A new tower at this location would not provide the required coverage to the south and east;
c) **275 Otrobondo Avenue, Norwich CT**: Cellco considered installing antennas on the roof top of a five story hotel; however, the elevation was unsuitable for Cellco's required coverage objectives;

d) **110 Yantic Lane, Norwich, CT**: Cellco's attempt to collocate on the existing water tank was rejected by the owner of the water tank (NPU); and
e) **110 Yantic Lane Norwich CT**: Cellco secured a lease agreement with the owner of the host parcel for the proposed site.

(Cellco 1, Attachment 8 – Site Search Summary p.2)

60. The 190-foot tall NPU-owned and operational water tank does not support antennas of any wireless carriers. NPU would not allow Cellco to use the water tank for telecommunications purposes and was not interested in a lease with Cellco. (Cellco 1, p.12; Tr. 1, pp. 18, 19 and 26)

61. Although it is technically possible to provide wireless service to the target service area using numerous small cells, the actual number of small cells necessary would be significant due to the large size of the service area to be covered. The use of a macro-cell at the proposed site is the most efficient and cost effective method for providing a large coverage footprint. (Tr. 1 pp. 63-65)

Facility Description

62. The proposed site is located on an approximately 115-acre parcel at 110 Yantic Lane in Norwich. The parcel is owned by Robert W. Larsen. The proposed site location is depicted on Figure 1. (Cellco 1, p. 7; Attachment 8 – Site Search Summary p. 1)

63. The subject property is zoned Residential (R-80) and is used for residential and public utility purposes. The largely undeveloped parcel currently hosts the existing 190-foot tall municipal water tank (owned and operated by NPU) and a residential structure and salvage yard located in the northern part of the property. Also, an Eversource electrical transmission line/corridor traverses the central portion of the host property in a southwest to northeast direction. (Cellco 1, p. 7, Attachment 10, p.1)

64. The proposed tower site is located in the central portion of the property, at an elevation of approximately 390 feet above mean sea level (amsl). (Cellco 1, site location map, Attachment 2 Site Evaluation Report, p. 4)

65. Land use immediately surrounding the subject parcel is predominately residential use, notably on the northwestern, western and southern boundaries of the property. However, there are large swathes of undeveloped space to the north and southeast of the host property. The parcel is bounded on the east by Route 2. (Cellco 1, Attachment 9, p.1; Cellco 1, Site Location Map – Viewshed Map)

66. The proposed facility would consist of a 110-foot monopole within a 100-foot by 100-foot leased area. The tower would be approximately 50 inches wide at the base tapering to 24 inches wide at the top. The tower would be designed to support a minimum of four wireless carrier antennas as well as municipal emergency services antennas. The tower would be designed to be expandable in height by up to 20 feet. (Cellco 1, p. 12)

67. The monopole would have a grey, galvanized steel finish. (Cellco 2, Response 11)

68. Cellco would install six panel antennas and six remote radio heads on a low-profile platform antenna mount with handrails at a centerline height of 110 feet agl. The total height of the facility with antennas would be 113 feet agl. (Cellco 1, p. 7; Attachment 7 Construction Drawings Sheets C-4 -C-5)

69. A 50-foot by 50-foot fenced equipment compound would be established at the base of the tower. The size of the equipment compound would be able to accommodate the equipment of four wireless carriers. Cellco would install one equipment cabinet and a 25-kilowatt propane fueled emergency backup generator with a 10-foot high x 10-foot square steel canopy on an 18-foot by 10-foot concrete pad located within the southeastern part of the compound. (Cellco 1, p. 12, Attachment 7 – Construction Drawings Sheets Sheet C-4)

70. Cellco would also install a 1,000-gallon propane tank on an 18-foot by 5-foot concrete pad. (Cellco 1, Attachment 7 – Construction Drawings Sheets Sheet C-4)

71. The proposed equipment compound will be surrounded by an eight-foot high chain-link fence. The fence would have a two-inch mesh with slats that provide an anti-climb feature. Cellco's proposed compound fence would have a gate that would be locked for security purposes. (Cellco 1, Attachment 2 Site Evaluation Report, p.4; Construction Drawings Sheet C-8; Cellco 2, response 8)

72. At the time of filing the application, access to the tower site would be via an existing dirt and gravel driveway from Yantic Lane extending approximately 2,300-feet in a southeast direction before turning northeast to the proposed site. (Cellco 1, p.i, p. 8, p.16; Cellco 2, response 4)

73. Since filing the application, Cellco acquired an easement to gain access to an existing gravel driveway from Philanne Drive extending approximately 900-feet in a northeast direction to the proposed site. Utility service providers, NPU and Eversource currently use Philanne Drive to access the property. (Cellco 1, p.i, p. 8, p.16; Cellco 2, response 4)

74. Both access driveways would be available for Cellco's use and Cellco is amendable to use the access driveway from Philanne Drive for construction purposes. Tr. 1 pp. 19, 29-30)

75. The existing access driveways are established, and minimal gravel may be added for stabilization. (Tr. 1, pp. 19 and 31)

76. Cellco would install erosion and sedimentation control measures along the shoulder of the driveways to avoid significant impact to adjacent wetland areas. (Cellco 1, Wetland Impact Assessment p.2; Wetland Protection Program; Tr. 1, pp. 20-22)

77. Cellco intends to tap an existing underground electric utility now serving the NPU water supply tower and located adjacent to the existing access drive from Philanne Drive to the proposed site. Fiber communications would be installed underground from an existing pole on Philanne Drive and would run generally parallel to and directly northwest of the access driveway to the equipment compound. (Cellco 1, p. 8; Tr. 1 p. 22)

78. The nearest property boundary from the proposed tower is approximately 434 feet to the northwest of the facility and is an undeveloped property. (Cellco 1, Attachment 1)

79. There are approximately 4 residential structures within 1,000 feet of the proposed tower site. The nearest residence is located at 24 Cottonwood Road, approximately 940 feet southwest of the tower site. (Cellco 1, p.14)

80. Site preparation and engineering would commence following Council approval of a Development and Management Plan (D&M Plan) and are expected to be completed within two to four weeks. Equipment installation is expected to take an additional two weeks after the tower and equipment pads are installed. After the equipment installation, cell site integration and system testing is expected to require about two additional weeks. (Cellco 1, p. 23)

81. The estimated cost of the proposed facility is:

Tower	$50,000
Site Development and Utility Installation	200,000
Generator	25,000
Antennas and Equipment	$150,000
Total Estimated Costs	**$425,000**

(Cellco 1, p.23)

82. Cellco would recover the costs of its equipment via the price of its services on a national level. (Tr. 1, pp. 26-27)

Public Safety

83. The Wireless Communications and Public Safety Act of 1999 (911 Act) was enacted by Congress to promote and enhance public safety by making 9-1-1 the universal emergency assistance number, by furthering deployment of wireless 9-1-1 capabilities, and by encouraging construction and operation of seamless ubiquitous and reliable networks for wireless services. (Council Administrative Notice Item No. 6 - Wireless Communications and Public Safety Act of 1999)

84. The proposed facility would be in compliance with the requirements of the 911 Act and would provide Enhanced 911 services. (Cellco 1, p.5)

85. Wireless carriers have voluntarily begun supporting text-to-911 services nationwide in areas where municipal Public Safety Answering Points (PSAP) support text-to-911 technology. Text-to-911 will extend emergency services to those who are deaf, hard of hearing, have a speech disability, or are in situations where a voice call to 911 may be dangerous or impossible. However, even after a carrier upgrades its network, a user's ability to text to 911 is limited by the ability of the local 911 call center to accept a text message. The FCC does not have the authority to regulate 911 call centers; therefore, it cannot require them to accept text messages. (Council Administrative Notice Item No. 21 – FCC Text-to-911: Quick Facts & FAQs)

86. Cellco's proposed facility would be capable of supporting text-to-911 service. (Cellco 2, response 21)

87. Pursuant to the Warning, Alert and Response Network Act of 2006, "Wireless Emergency Alerts" (WEA) is a public safety system that allows customers who own enabled mobile devices to receive geographically-targeted, text messages alerting them of imminent threats to safety in their area. WEA complements the existing Emergency Alert System that is implemented by the FCC and FEMA at the federal level through broadcasters and other media service providers, including wireless carriers. (Council Administrative Notice No. 5 – FCC WARN Act)

88. Cellco's proposed facility would comply with the Warning, Alert and Response Network Act of 2006. (Cellco 1, p. 4-5)

89. Pursuant to C.G.S. §16-50p(a)(3)(G), the tower would be constructed in accordance with the current governing standard in the State of Connecticut for tower design in accordance with the currently adopted International Building Code; (Cellco 1, Attachment 2 Site Evaluation Report p.6; Cellco 2, response 12; Tr. 1 p.17)

90. The proposed tower would not require notice to the Federal Aviation Administration or constitute an obstruction or hazard to air navigation and therefore would not require any obstruction marking or lighting. (Cellco 1, p. 21)

91. Cellco's equipment shelter would be equipped with silent intrusion and system alarms. Cellco would have personnel available on a 24-hour basis to receive and respond to incoming alarms. (Cellco 2, response 8)

92. The tower radius would remain within the boundaries of the subject property. A tower design yield point would not be necessary; however, Cellco would be willing to install one at 55-feet, if required. (Tr 1, pp. 37)

93. Construction noise is exempt from the DEEP Noise Control Regulations §22a-69-1.8(g), which includes, but is not limited to, "physical activity at a site necessary or incidental to the erection, placement, demolition, assembling, altering, blasting, cleaning, repairing, installing, or equipping of buildings or other structures, public or private highways, roads, premises, parks, utility lines, or other property." (R.C.S.A. §22a-69-1.8(g))

94. The cumulative worst-case maximum power density from the radio frequency emissions from the operation of all approved antennas and Cellco's proposed antennas is 56.63% for the General Public/Uncontrolled Maximum Permissible Exposure, as adopted by the FCC, at the base of the proposed tower. This calculation was based on methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997) that assumes all antennas in a sector would be pointed at the base of the tower and all channels would be operating simultaneously, which creates the highest possible power density levels. Under normal operation, the antennas would be oriented outward, directing radio frequency emissions away from the tower, thus resulting in significantly lower power density levels in areas around the tower.
(Cellco 1, p 18; Council Administrative Notice Item No. 2 – FCC OET Bulletin No. 65)

Emergency Backup Power

95. In response to two significant storm events in 2011, Governor Malloy formed a Two Storm Panel (Panel) that was charged with an objective review and evaluation of Connecticut's approach to the prevention, planning and mitigation of impacts associated with emergencies and natural disasters that can reasonably be anticipated to impact the state. (Final Report of the Two Storm Panel, (Council Administrative Notice Item No. 43)

96. Consistent with the findings and recommendations of the Panel, and in accordance with C.G.S. §16-50*ll*, the Council, in consultation and coordination with DEEP, DESPP and PURA, studied the feasibility of requiring backup power for telecommunications towers and antennas as the reliability of such telecommunications service is considered to be in the public interest and necessary for the public health and safety. (Council Administrative Notice Item No. 26 – Council Docket No. 432)

97. Commercial Mobile Radio Service (CMRS) providers are licensed by and are under the jurisdiction and authority of the FCC. At present, no standards for backup power for CMRS providers have been promulgated by the FCC. Every year since 2006, AT&T, Sprint, T-Mobile, and Verizon have certified their compliance with the CTIA Business Continuity/Disaster Recovery Program and the Communications Security, Reliability and Interoperability Council standards and best practices to ensure network reliability during power outages. (Council Administrative Notice Item No. 26 – Council Docket No. 432)

98. For backup power, Cellco proposes a 25-kilowatt propane-fueled generator for its own use. Cellco would also install an approximately 1,000-gallon propane fuel tank to provide approximately seven days of run time before it requires refueling. (Cellco 1, p. 10; Tr. 1, p. 11)

99. Cellco would also have a battery backup system integrated into its equipment cabinet in order to avoid a "re-boot" condition during the generator start-up delay period. The battery backup system alone could provide about four to eight hours of backup power. (Cellco 1, p.8; Cellco 2, response 20; Tr 1, pp. 17-18)

100. Although Cellco prefers that each tenant on the tower use its own source of backup power, Cellco would be open to future carriers' proposals to install a larger capacity generator (in place of Cellco's generator) for shared use. (Cellco 2, response 13; Tr. 1, pp. 74-75)

101. The proposed backup generator would be remotely alarmed to protect against fuel leakage. Also, the generator has a secondary containment basin to collect any oil or coolant leaks. (Cellco 1, Tr. 1, pp. 17 & 21)

102. The generator would be remotely tested and monitored on a weekly basis to ensure proper operation. (Tr. 1, p.18)

103. The 1,000-gallon propane tank would only contain 800 gallons of liquid propane due to gas expansion within the tank. (Tr. 1, p. 62)

104. According to R.C.S.A. §22a-69-1.8, noise created as a result of, or relating to, an emergency, such as an emergency backup generator, is exempt from the DEEP Noise Control Regulations. (R.C.S.A. §22a-69-1.8)

105. Pursuant to R.C.S.A. §22a-174-3b, the generator would be managed to comply with DEEP's "permit by rule" criteria. Therefore, the generator would be exempt from general air permit requirements. (R.C.S.A. §22a-174-3b)

Environmental Considerations

106. There are no prime farmland soils on the site. (Cellco 1, p.17; attachment 13 -Farmland map)

107. No historic properties would be affected by the proposed facility. (Cellco 1, p.17, Attachment 12 Historic Resources determination)

108. The site is located in The Last Green Valley Heritage Area (TLGVHA), a 35-town area located in eastern Connecticut and south-central Massachusetts and within the watershed of the Quinebaug and Shetucket Rivers, established by Congress in 1994 to recognize the region as a unique national resource. The designation is intended to preserve and celebrate the region's cultural, historical and natural heritage. The proposed site is not proximate to any TLGVHA identified historic, cultural or natural resource. (Council Administrative Notice No. 69)

109. The Inland Wetlands and Watercourses Act (IWWA), CGS §22a-36, *et seq.*, contains a specific legislative finding that the inland wetlands and watercourses of the state are an indispensable and irreplaceable but fragile natural resource with which the citizens of the state have been endowed, and the preservation and protection of the wetlands and watercourses from random, unnecessary, undesirable and unregulated uses, disturbance or destruction is in the public interest and is essential to the health, welfare and safety of the citizens of the state. (CGS §22a-36, et seq.)

110. The IWWA grants regulatory agencies with the authority to regulate upland review areas in its discretion if it finds such regulations necessary to protect wetlands or watercourses from activity that will likely affect those areas. (CGS §22a-42a)

111. The IWWA forbids regulatory agencies from issuing a permit for a regulated activity unless it finds on the basis of the record that a feasible and prudent alternative does not exist. (CGS §22a-41)

112. Seven wetlands are on the property. Five wetlands are located along the shoulder of the existing access driveway from Yantic Lane and two wetlands possibly separated by a pre-existing buried culvert are located on either side of the existing access driveway from Philanne Drive. (Cellco 1, p.16; Attachment 13 Wetland Inspection; Tr. 1, pp. 28-29)

113. The nearest wetland to the proposed site is a man-made drainage ditch along the shoulder of the access driveway from Yantic Lane and is located approximately 460 feet south-southwest from the proposed site. (Cellco 1, p.16; Attachment 13 Wetland Inspection)

114. Cellco intends to implement a wetland protection plan and employ Best Management Practices (BMPs) during construction to prevent significant impact to the proximate wetlands. Some of these BMPs include but are not limited to Contractor Education, Petroleum Materials Storage and Spill Prevention, Erosion and Sedimentation controls and Reporting. (Cellco 1, p.16; Attachment 13 Wetland Inspection p.2)

115. Erosion and sedimentation control measures would be installed after tree clearing and prior to grubbing or soil disturbance at the proposed site. (Tr. 1 p.21)

116. No vernal pool habitat was observed within the wetlands. (Cellco 1, Attachment 11)

117. Cellco would retain the services of a wetland scientist from All Points Technology to serve as the environmental monitor for this project and to ensure that all aspects of the wetland protection program are adhered to. (Cellco 1, p. 20, Attachment 13, Wetland Inspection p.2)

118. The proposed site is located on mostly level ground with a slope of approximately 2-feet across the 50-foot compound. Development of the site would require less than 25 cubic yards of cut and 25 cubic yards of fill. (Cellco 2, response 5)

119. The proposed project would comply with the *2002 Connecticut Guidelines for Soil Erosion and Sedimentation Control*. (Cellco 1, Attachment 13 Wetland Inspection p.2))

120. The site is located in the Federal Emergency Management Agency Zone unshaded zone X, an area outside of the 100-year and 500-year flood zones. (Cellco 1, p. 20; Attachment 15 FEMA flood map)

121. There is no state-designated aquifer protection area in the Town of Norwich. (Council Administrative Notice No. 70, DEEP Aquifer Protection Area Maps)

122. The proposed facility is not located within 0.25-mile of a DEEP Natural Diversity Database buffer area. (Cellco 1, p.16; Attachment 10 USFWS & NDDB compliance determination; NDDB map)

123. Development of the proposed site would require the removal of three to four trees with a diameter of six inches or greater at breast height. (Tr. 1, p.14)

124. Connecticut is within the range of the northern long-eared bat (NLEB), a federally-listed threatened species and state-listed endangered species. There are no known NLEB hibernacula or known maternity roost trees within 0.25 miles and 150-feet, respectively, of the propose site. Cellco's consultant, All Points Technology, Inc. (APT) consulted with the U.S. Fish and Wildlife Service and determined that the proposed facility would not have an impact on the NLEB. (Cellco 1, Attachment 10 USFWS & NDDB compliance determination)

125. The nearest Important Bird Area ("IBA") to the proposed site is The Lyme Forest Block in Colchester, located approximately 5.8 miles to the west. (Cellco 2, Response 24)

126. The proposed facility would comply with the United States Fish and Wildlife Service guidelines for minimizing the potential for telecommunications towers to impact bird species. (Cellco 1, Attachment 10; Cellco 2, Response 24)

127. Cellco does not anticipate the need for blasting at the proposed site. (Cellco 2, response 6)

Visibility

128. The Cellco's consultant, APT used a combination of predictive computer model, in-field analysis, and review of various data sources to evaluate the visibility of the proposed facility on both a quantitative and qualitative basis; (Cellco 1, Attachment 10 p.2)

129. On February 14, 2020, APT conducted a crane test and a field reconnaissance. The crane test consisted of attaching a brightly colored, approximately 4' by 4' flag to a crane boom and raising it to a height of approximately 113 feet agl at the proposed monopole location. Weather conditions were favorable for the in-field activity with variable winds and sunny skies. (Cellco 1, Attachment 10, p.4)

130. Information obtained during the field reconnaissance was incorporated into APT's mapping data layers, including observations of the field reconnaissance, photo-simulation locations, areas that experienced land use changes, and places where the initial modeling was found to over- or under-predict visibility. Once the additional data was integrated into the model, APT re-calculated the visibility of the proposed facility from within a two-mile study area to produce the final viewshed map. (Cellco 1, Attachment 10, pp. 3-4)

131. The study area included portions of the neighboring municipalities of Bozrah to the west and Franklin to the north. (Cellco 1, Attachment 10, p.1)

132. Based on APT's viewshed map, the proposed tower would be visible year-round from approximately 44 acres within a two-mile radius of the site (refer to Figure-10). This would be about 0.55 percent of the study area.* The tower would be seasonally visible (leaf-off conditions) from an approximately 22 acres within a two-mile radius of the site or about 0.27 percent of the study area. (Cellco 1, Attachment 10, p.8)
*The study area is comprised of 8,042 acres.
(Cellco 1, Attachment 10 viewshed map)

133. The proposed facility would not be highly visible beyond approximately 1.0-mile of the site, where the most prominent views would occur. This area would include portions of Otrobando Avenue to the northwest, West Town Street Parking Lot, Wisconsin Avenue and Plain Hill Road to the southwest, and Rachel Drive in Bozrah to the southeast. Year-round visibility of the facility would extend intermittently to Philanne Drive, Beechwood Boulevard, and Lorndale Drive to the north and northeast of the facility. (Cellco 1, Attachment 10 p.6-7)

134. Seasonally (i.e. under "leaf-off conditions) partially obstructed views of the facility in the immediate area of the site would extend north to Cottonwood Road and Beechwood Boulevard at Fruitwood Drive and west to Case Street and Ohio Avenue. (Cellco 1, Attachment 10, pp.6-7)

135. Pursuant to CGS §16-50p(a)(3)(F), for a telecommunications facility proposed to be installed on land near a building containing a school, the facility will not be less than 250 feet from the building containing a school unless the location is acceptable to the chief elected official of the municipality or the Council finds that the facility will not have a substantial adverse effect on the aesthetics or scenic quality of the neighborhood in which such school is located. (CGS §16-50p(a)(3)(F))

136. The nearest building containing a school is the Deborah-Tennant Zinewicz public school located approximately 1.23 miles west of the proposed facility on Case Street. The nearest building containing a commercial child day care facility is the Champions Day Care Center located approximately 1.27 miles southeast of the proposed facility. No visibility of the tower is predicted from either the public school or the day care center. (Cellco 1, Attachment 10, p.8)

137. During the study area reconnaissance, APT obtained photo-documentation of representative locations where the flag was visible, and the visibility of the proposed tower from such specific locations within a two-mile radius of the site is presented in the table below:

Location	**Photo Location**	**Approx. Distance & Direction to Tower**	**Visibility**
Yantic Lane	1	0.29 miles southeast	Not Visible
Cottonwood Road	2	0.20 miles northeast	Seasonal
Philanne Drive at Entrance to Host Property	3	0.19 miles northeast	Not Visible
Philanne Drive	4	0.40 miles northeast	Year Round
Beechwood Boulevard	5	0.36 miles north	Year Round

Beechwood Boulevard at Fruitwood Drive	6	0.25 miles north	Seasonal
Fruitwood Drive	7	0.28 miles north	Not Visible
Lornadale Drive	8	0.39 miles northwest	Not Visible
Lornadale Drive	9	0.43 miles northwest	Year Round
Dalewood Drive at Blueberry Hill Road	10	0.52 miles north	Not Visible
Norwich Little League Fields	11	0.80 miles northwest	Not Visible
Otrobando Avenue	12	1.05 miles northwest	Year Round
Sholes Avenue at Sturtevant Street	13	1.06 miles west	Not Visible
Case Street	14	1.18 miles west	Seasonal
West Town Street Parking Lot	15	1.05 miles southwest	Year Round
Clinton Avenue at Wawecus Street	16	0.89 miles west	Seasonal
West Town Street	17	0.66 miles southwest	Not Visible
Norwich-Colchester Turnpike	18	0.57 miles south	Not Visible
Ohio Avenue	19	1.04 miles southwest	Seasonal
Wisconsin Avenue	20	1.08 miles southwest	Year Round
Plain Hill Road	21	1.56 miles southwest	Not Visible
Plain Hill Road	22	2.00 miles southwest	Year Round
Senator Thomas J. Dodd Memorial Stadium Parking Lot	23	1.85 miles southwest	Not Visible
Hilltop Road at Wisconsin Avenue	24	1.54 miles southwest	Not Visible

New Park Avenue	25	1.07 miles south	Not Visible
Windham Turnpike	26	1.53 miles southeast	Not Visible
Rachel Drive, Bozrah	27	1.47 miles southeast	Year Round
Stockhouse Road, Bozrah	28	1.65 miles southeast	Not Visible
Gifford Lane, Yantic	29	0.66 miles southeast	Not Visible
Gifford Lane, Yantic	30	1.45 miles northeast	Not Visible
Wawecus Street at Browning Road	31	1.25 miles northeast	Not Visible
Goldmine Road	32	1.96 miles north	Not Visible
North Wawecus Hill Road	33	1.49 miles north	Not Visible

(Cellco 1, Attachment 10 p.6-7)

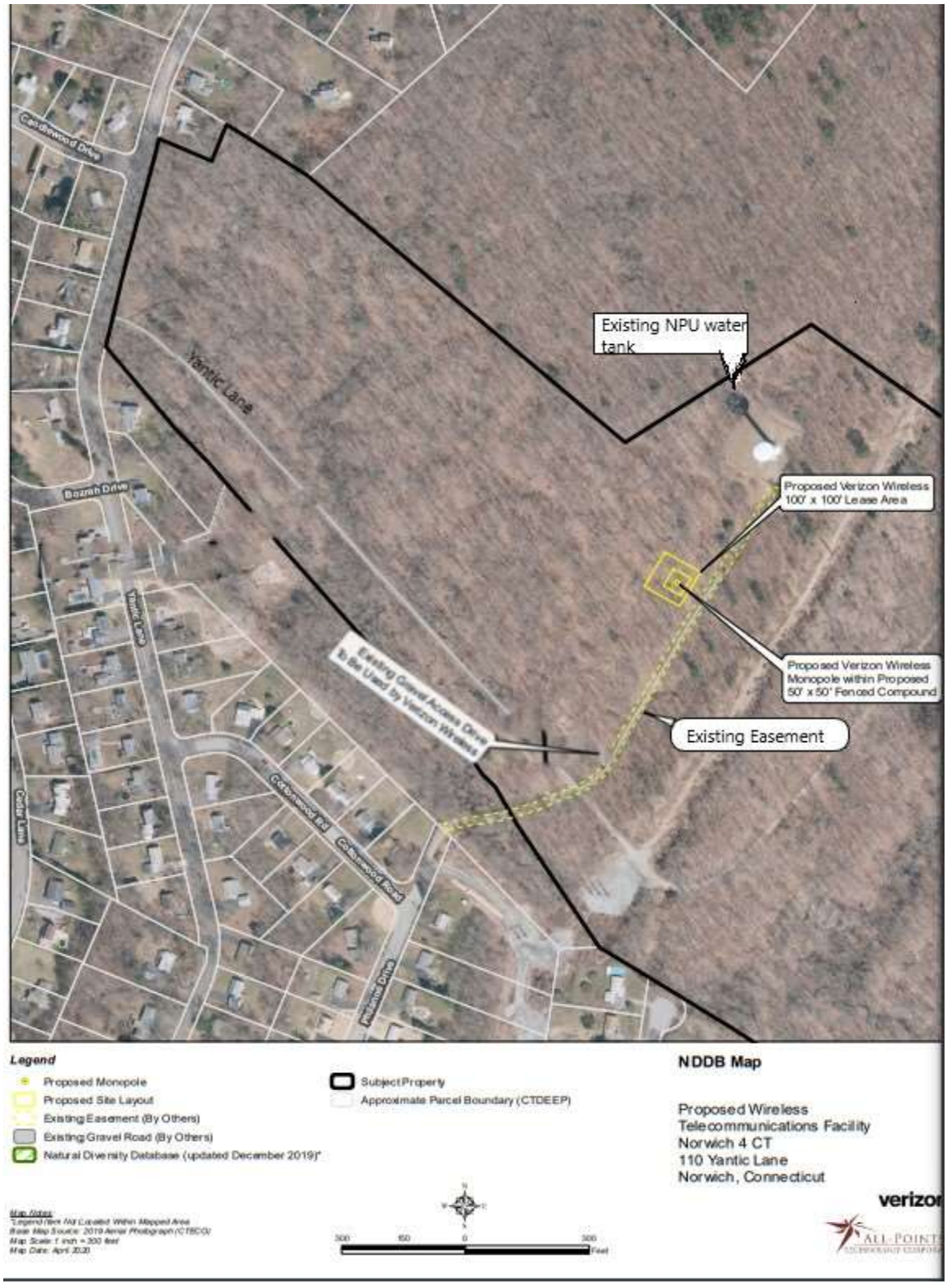
138. There are no state or locally-designated scenic roads located within the two-mile study area. (Cellco 1, Attachment 15 Cultural Resources Screen)

139. No landscaping is proposed as the compound area is located within a wooded area. (Cellco 1, Attachment 1)

140. There are no "blue-blazed" hiking trails maintained by the Connecticut Forest and Park Association within one-mile of the site. (Cellco 1, Attachment 9 Visibility Assessment; Council Administrative Notice Item No. 73)

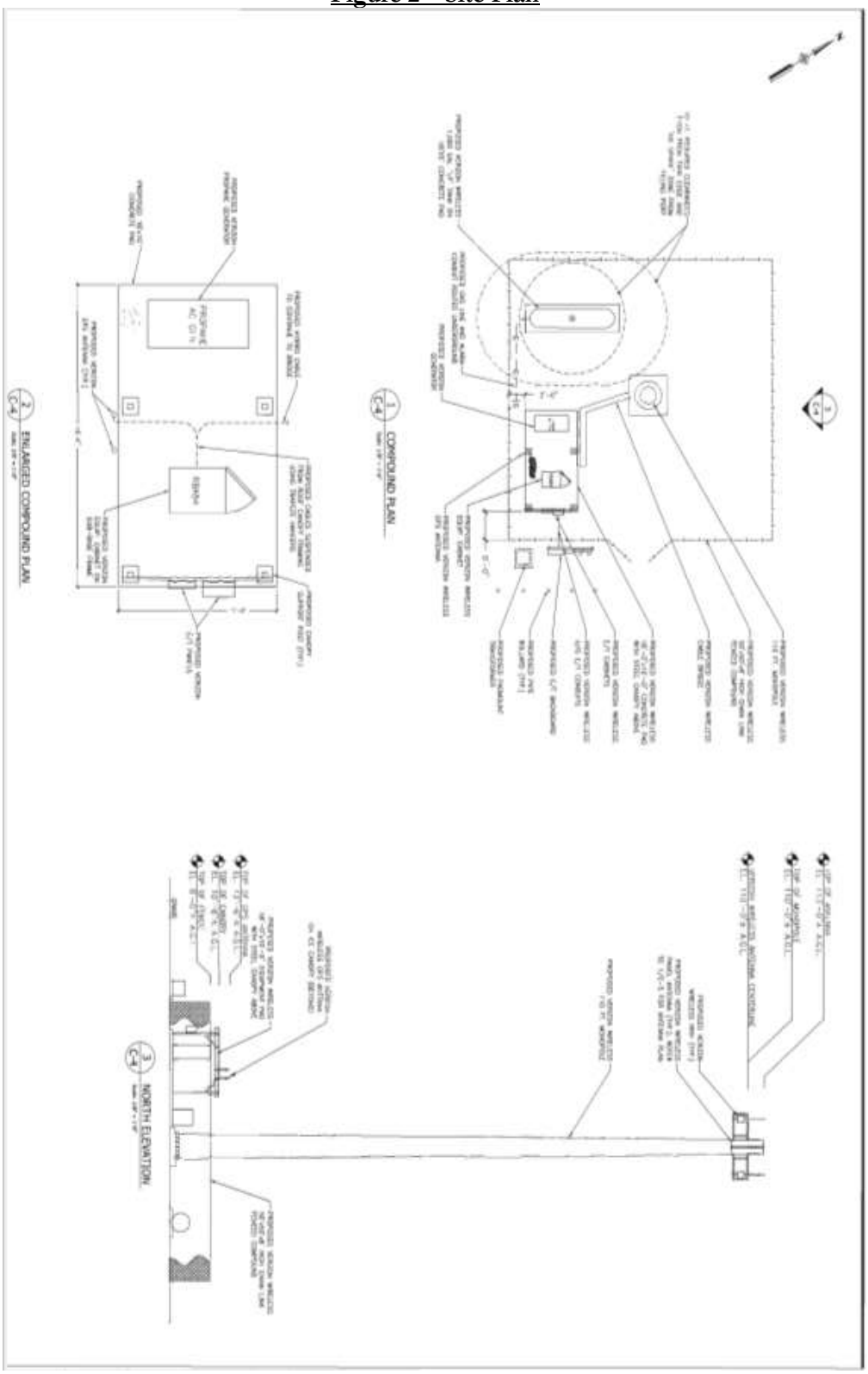
141. Cellco considered possible stealth tower designs, however, the wooded forest setting of the site and predominance of deciduous trees in the vicinity of the tower do not provide the proper context for a monopine design. Implementing some form of interior-mounted antenna design, even if technically feasible, would result in a substantially wider and taller monopole to accommodate Cellco's and future carriers' equipment and limit co-location opportunities. (Cellco 2, response 25)

Figure 1 – Aerial Map



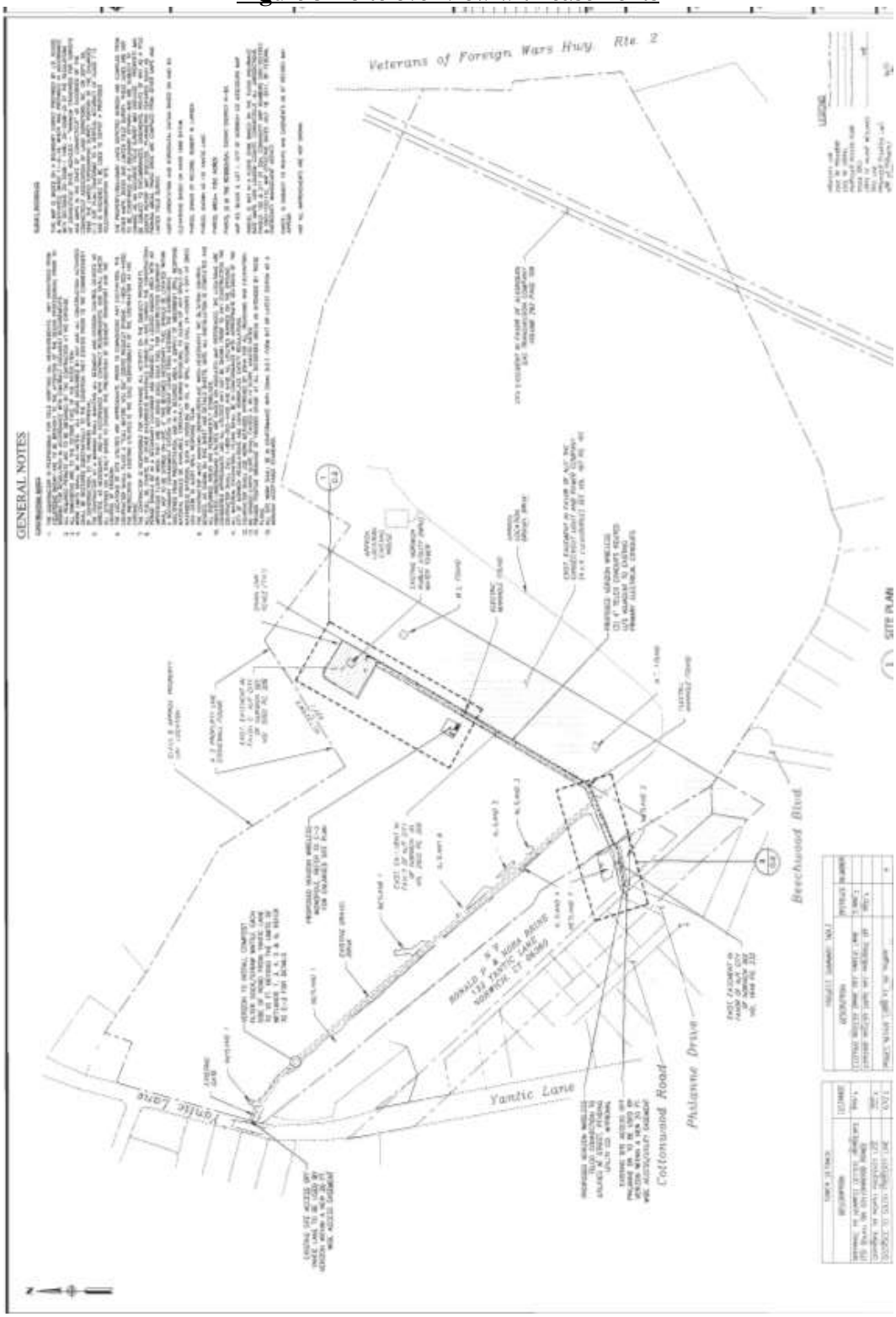
(Cellco 1, p.iii Site Location Map)

Figure 2 – Site Plan



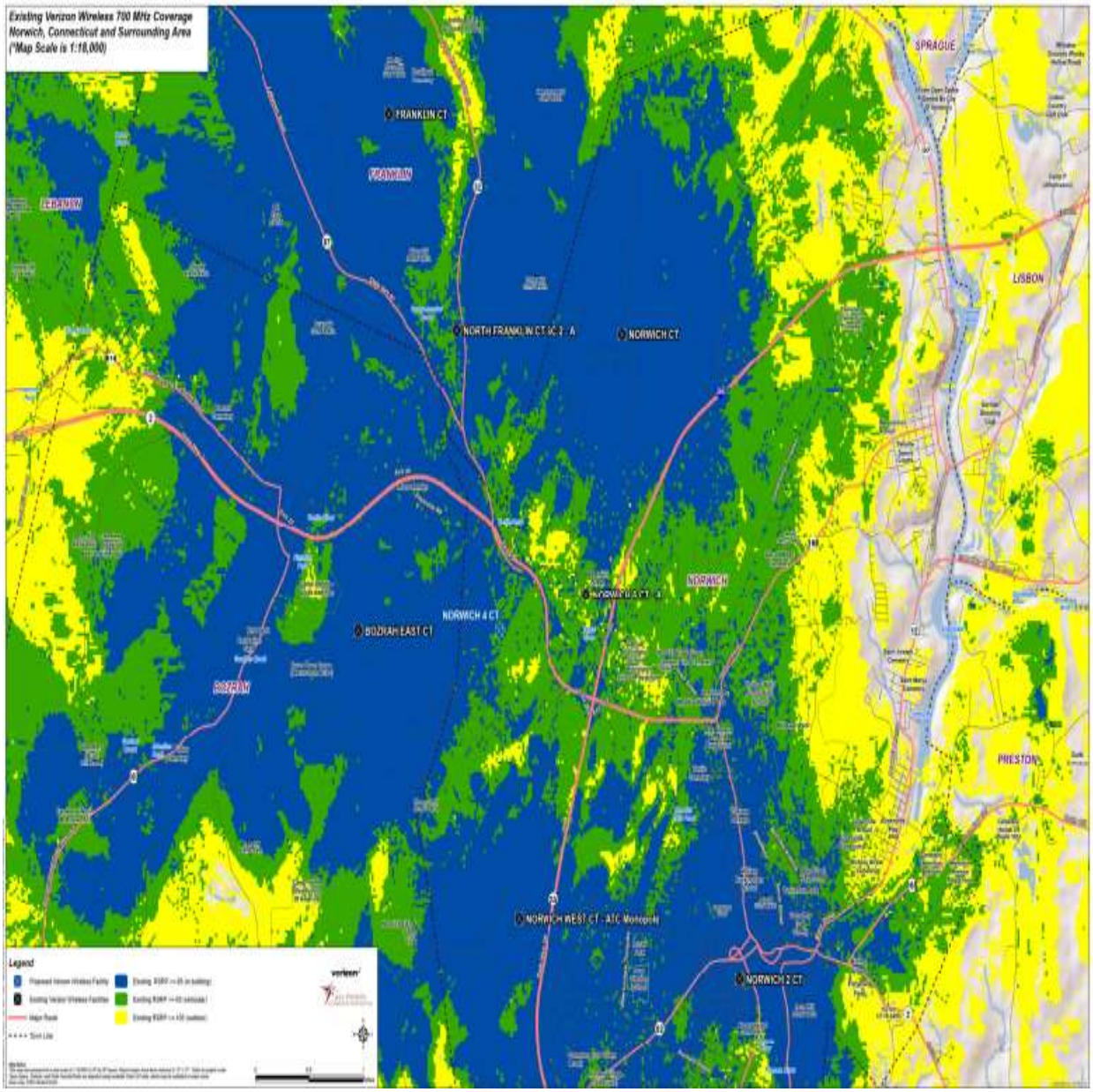
(Cellco 1, Attachment 1)

Figure 3 – Site over view with easements



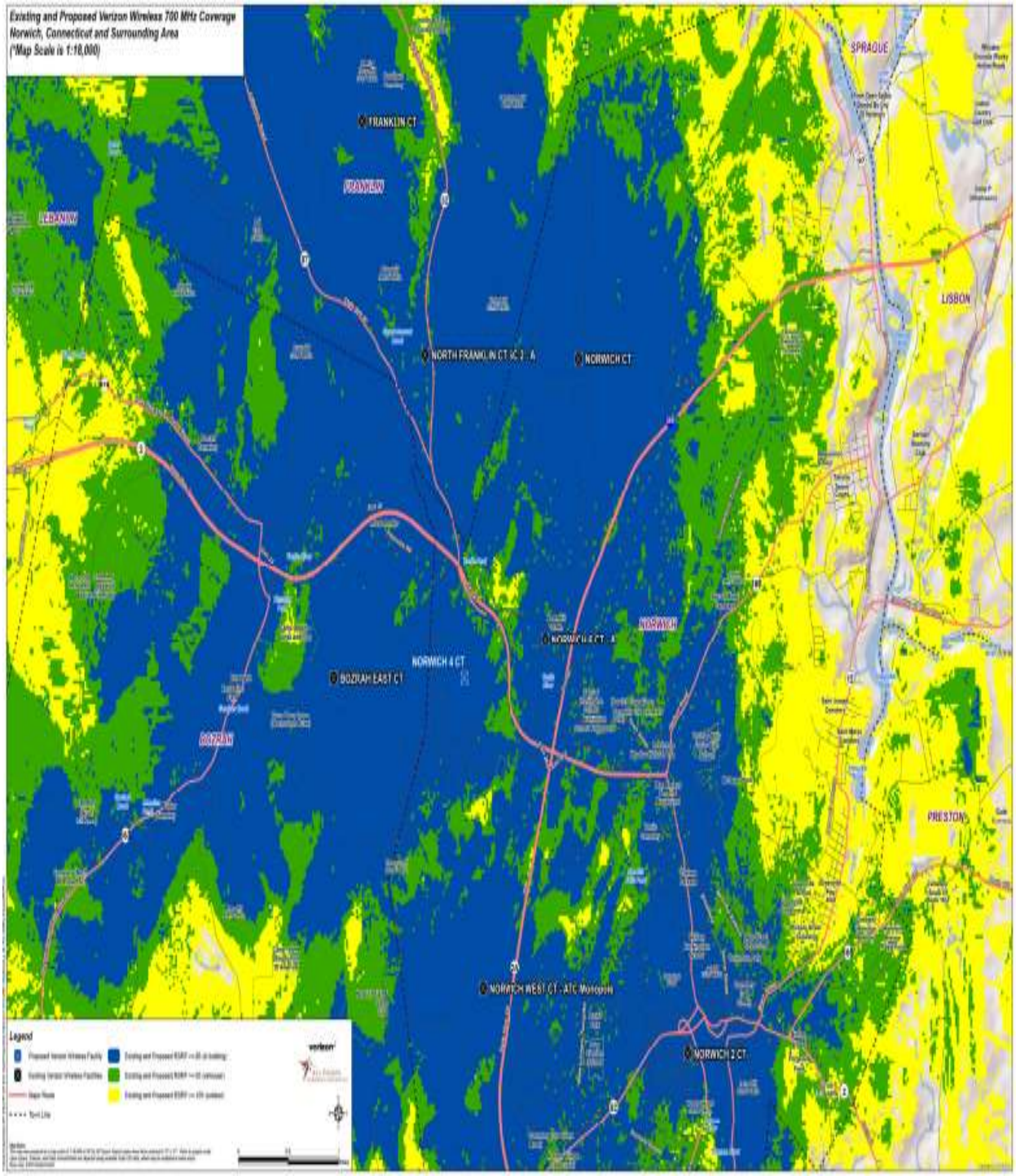
(Cellco 1, Attachment 1)

Figure 4 – Existing 700 MHz Coverage



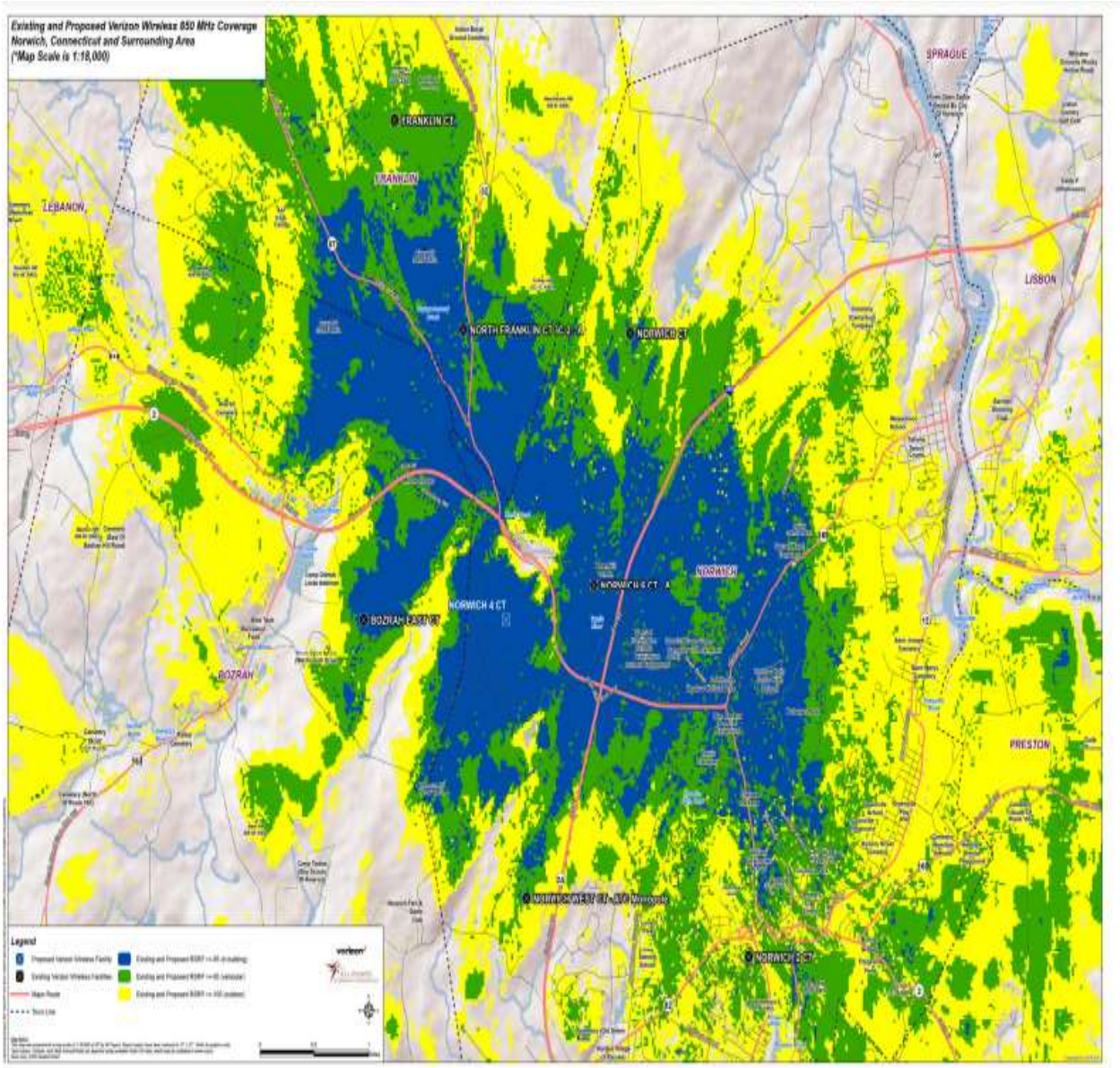
(Cellco 1, Attachment 6 Coverage maps)

Figure 5 – Proposed 700 MHz Coverage at 110 feet



(Cellco 1, Attachment 6 Coverage map)

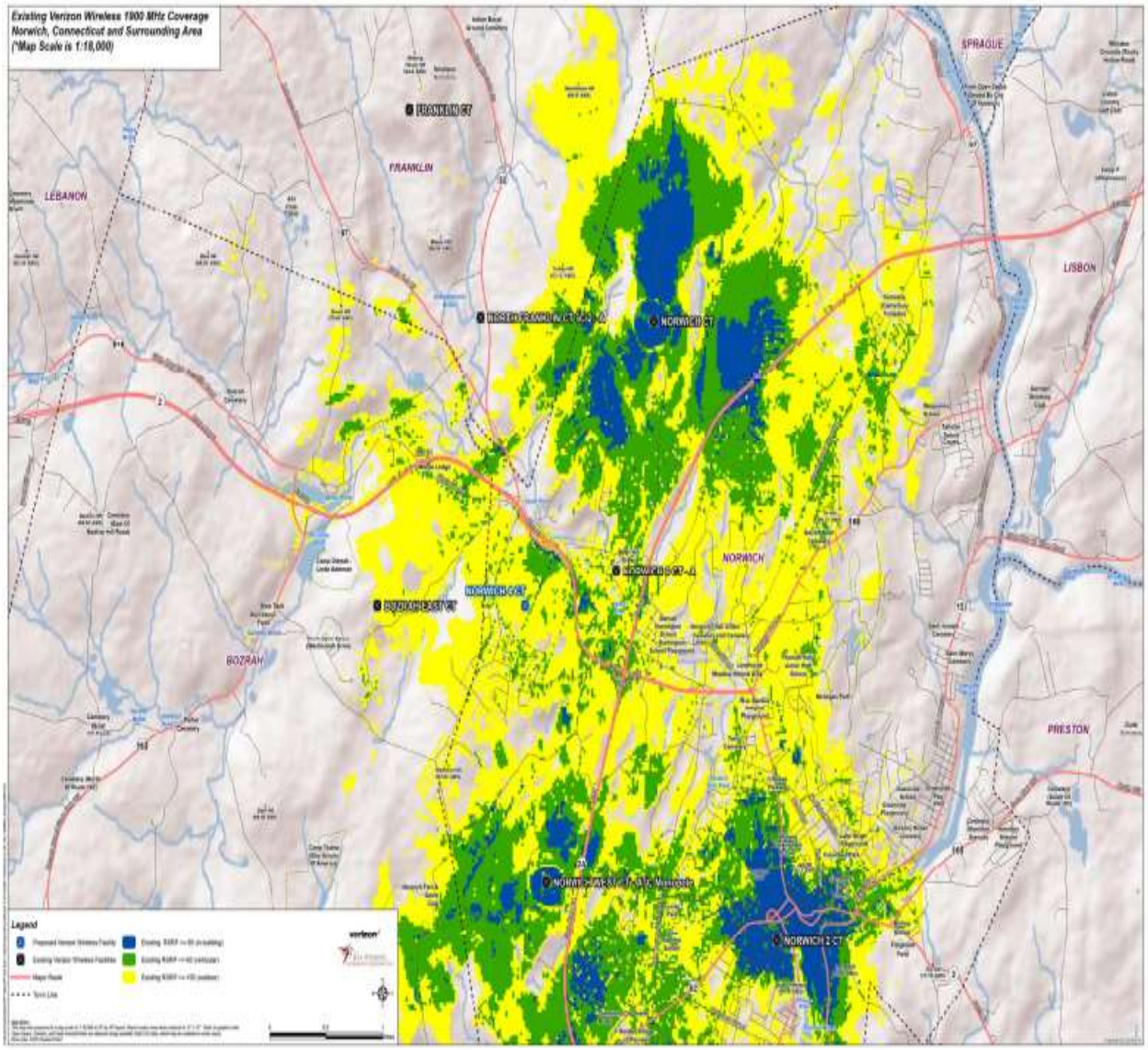
Figure 6 Proposed 850 MHz Coverage* at 110 feet



* Presently, Cellco has no existing 850 MHz frequency deployed in the area; thus, no map was provided.

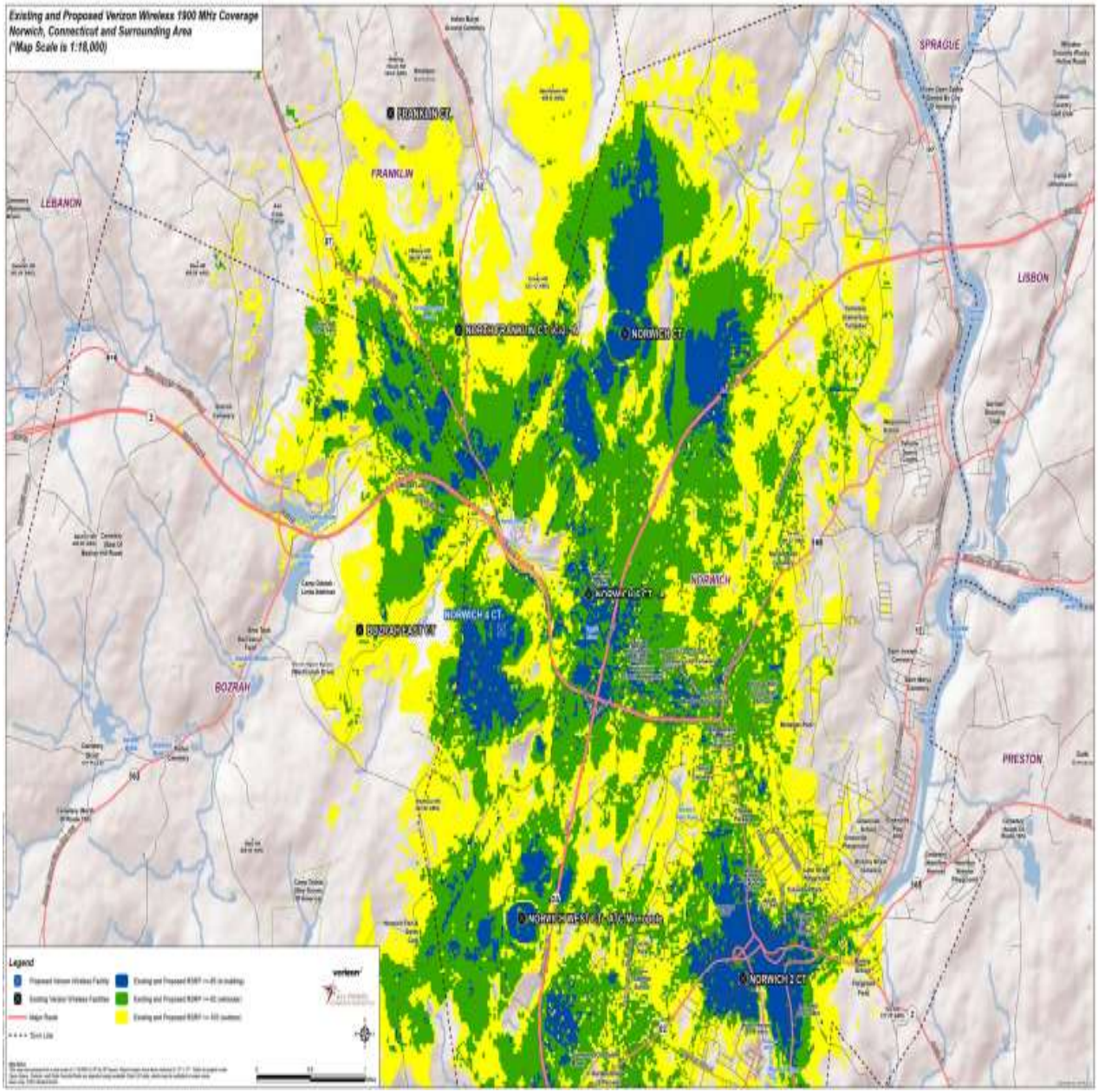
(Cellco 1, Attachment 6 Coverage map; Cellco 1, p. 7)

Figure 7 Existing 1900 MHz Coverage



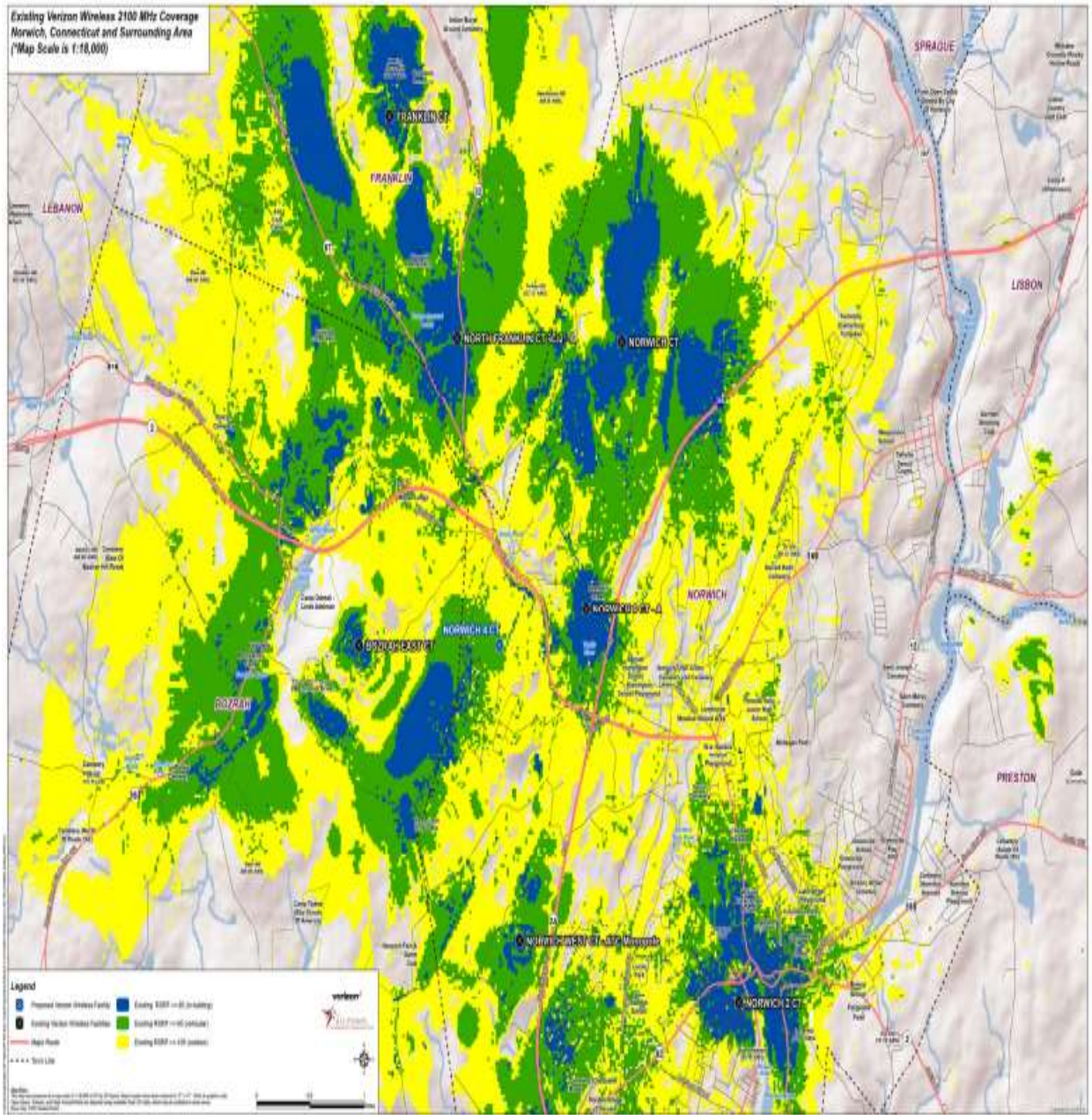
(Cellco 1, Attachment 6 Coverage map)

Figure 8 Proposed 1900 MHz Coverage at 110-feet



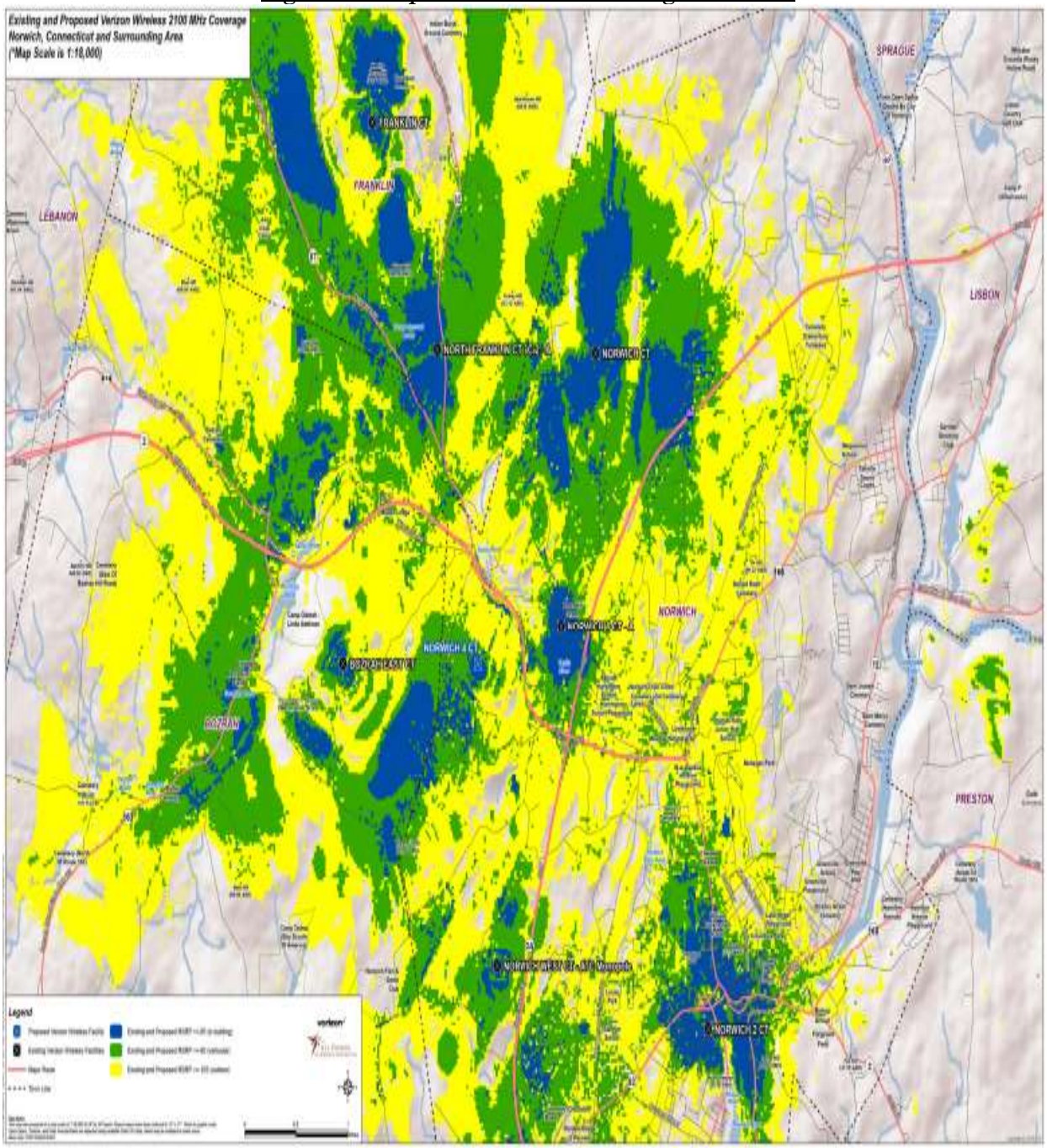
(Cellco 1, Attachment 6 Coverage maps)

Figure 8 – Existing 2100 MHz Coverage



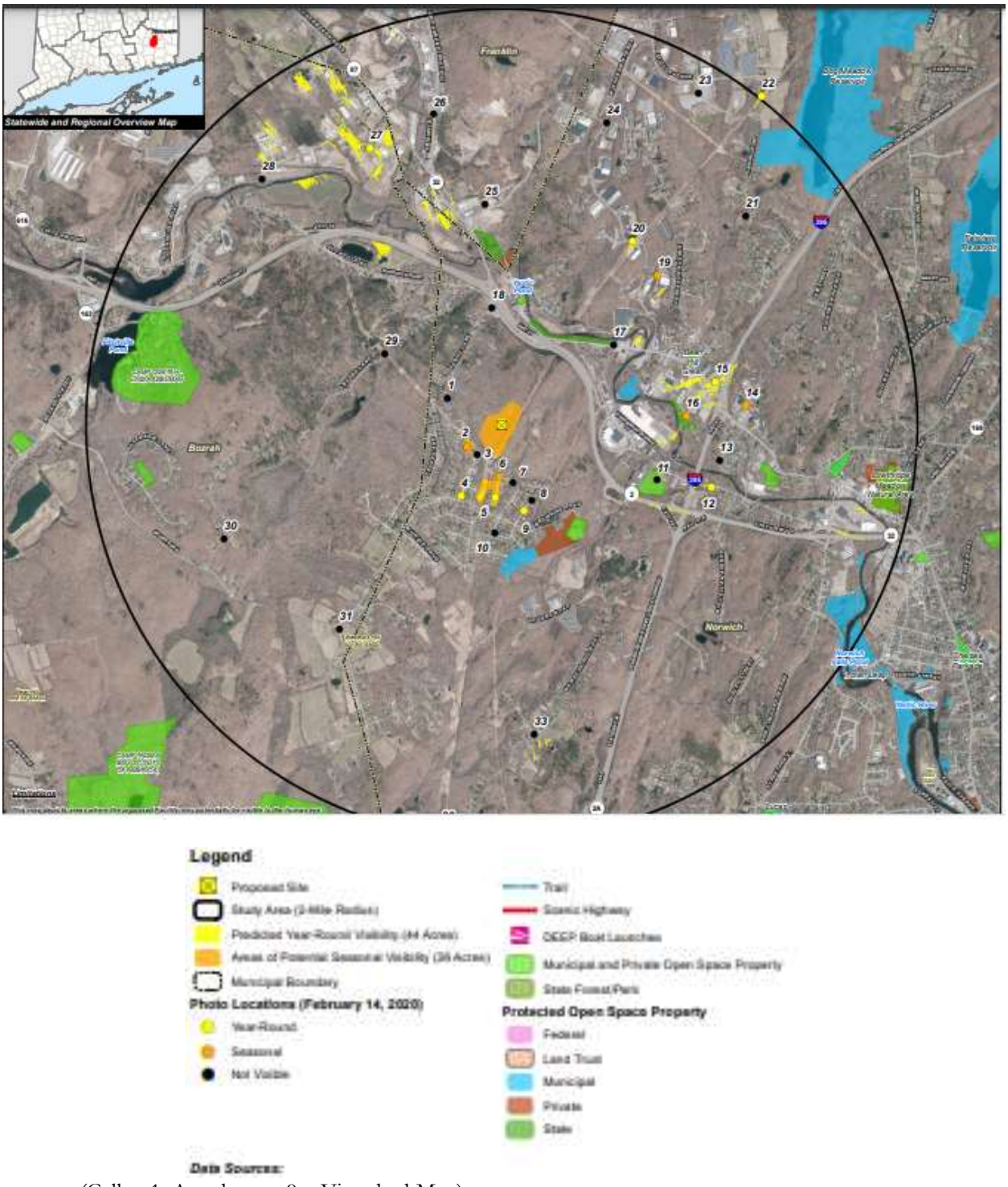
(Cellco 1, Attachment 6 Coverage maps)

Figure 9 – Proposed 2100 MHz Coverage at 110 feet



(Cellco 1, Attachment 6 Coverage Maps)

Figure 10 – Visibility Analysis



(Cellco 1, Attachment 9 – Viewshed Map)

ATTACHMENT

DOT Comments to Council, dated September 15, 2020

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

2800 BERLIN TURNPIKE, P.O. BOX 317546
NEWINGTON, CONNECTICUT 06131-7546

Phone:

September 15, 2020

Ms. Melanie Bachman
Acting Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Dear Ms. Bachman:

Subject: Docket 491
Wireless Telecommunication Facility
110 Yantic Lane
City of Norwich

The Connecticut Department of Transportation (CTDOT) has reviewed the above-mentioned Docket and offers the following comments.

- Adherence to the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as this referenced standard was not found within the document or plan set.
- Temporary wetland impacts for the installation of utilities & driveway along Yantic Lane are to be restored with appropriate wetland seeding mixture.
- Site Plan Sheet C-1 references Form 817 the revised version is Form 818.
- Identify on the plan sheet the "minimal" tree clearing limits.
- If storm-water mitigation is required, applicant is to adhere to 2004 Connecticut Stormwater Quality Manual.

Finally, the telecommunication facility as proposed (< 1 acre of impact), does not require a stormwater permit, nor proposes to tie into CTDOT drainage, nor impacts any known CTDOT wetland creation sites.

Should you have any questions, please contact Ms. Latoya Smith, Utility Engineer (Utilities) at Latoya.Smith@ct.gov.

Very truly yours,

Andrzej Mysliwiec

Andrzej Mysliwiec
Transportation Supervising Engineer
Division of Facilities and Transit
Bureau of Engineering and Construction

Enclosure